

REMARKS

By this amendment, applicants have amended claims 1 and 3 to positively claim the steps of the method, have amended claims 6, 8 and 10 to delete the "preferably" and exemplary limitations therefrom, have canceled non-elected claims 12 - 20 without prejudice or disclaimer and have added claims 21 - 23 to define further aspects of the invention.

Claims 1 - 6 stand rejected under 35 USC 112, second paragraph, as allegedly being indefinite for failing to particular out and distinctly claim the subject matter which applicants regard as the invention. In support of this rejection, it has been urged by the Examiner that the claims are directed to a method but no method steps are listed. It has also been urged by the Examiner that the term "N soda" is a relative term which renders the claim indefinite. Applicants traverse this rejection, at least insofar as it applies to the claims as presently amended.

Claims 1 and 3 have been amended to positively set forth the steps of the claimed method. Accordingly, claims 1 - 6, at least as presently amended, are clearly directed to a method, not an article, as alleged by the Examiner. With respect to the term "1 N soda" in claim 4 (not claim 3), applicants submit this term is not a relative term but an unambiguous definition. It is well known that "N" is an abbreviation for normal solution, i.e., a solution containing one equivalent weight of dissolved substance per liter of solution. Accordingly, "1 N soda" would be clearly understood by those skilled in the art as "1 mol/liter of soda concentration." Therefore, claim 4 is not indefinite.

In view of the foregoing amendments and remarks, reconsideration and withdrawal of the rejection of claims 1 - 6 under 35 USC 112, second paragraph, are requested.

Claims 1 - 11 stand rejected under 35 USC 103(a) as being unpatentable over United States Patent No. 4,271,218 to Heckel et al in view of United States Patent No. 5,272,181 to Boehmer et al. Applicants traverse this rejection and request reconsideration thereof.

The present invention relates to a method for thermally insulating an enclosure and to an installation containing a thermal insulant for an enclosure. Broadly, the present invention relates to insulation of a first enclosure placed in a second enclosure. The enclosures can consist of a string of tubings intended for transportation of a petroleum effluent, placed in another pipe, a well for example. Several thermal insulation techniques are currently known. The string can be insulated by using tubings comprising an insulating material deposited or fastened outside the tubings. This method is very expensive and the tubings are difficult to handle. The annulus can also be filled with a more or less insulating fluid, gelled gas oil, or rigid foam manufactured in situ. However, liquids are not very good insulants, gels are delicate to use in operation and not very temperature stable, while manufacture of rigid foams is difficult to control and sending them into the annulus blocks the tubing string in the well, thus preventing complete withdrawal of the string.

The method of the present invention comprising filling a volume defined by the space contained between a first enclosure interior to a second enclosure with vegetable foam particles. Thus, the installation comprises a first enclosure placed in a second enclosure and is characterized in that the space between the enclosures comprises a volume of vegetable foam particles used as a thermal insulant. Such is neither disclosed nor suggested by Heckel et al and/or Boehmer et al.

The Heckel et al patent discloses a pipe insulating jacket comprising a hollow cylinder made of a soft foamed material and an outer sleeve with abutting edges

parallel to the axis of the pipe. The outer sleeve is formed by a metal foil carrying a heat-softenable coating on its inside, the inside of the metal foil being bonded throughout to the surface of the soft foamed material and, in proximity to the abutting edges, being welded to itself along its upwardly bent edges. As recognized by the Examiner, the Heckel et al patent fails to disclose that a space between first and second enclosures is filled with vegetable foam particles. In the first place, the soft foam material of Heckel et al is not made of a vegetable foam. Rather, the foam is disclosed to be advantageously a closed cell cross-linked polyethylene. Moreover, it appears the foam is a layer of foam which is bonded to the outer sleeve; that is, the foam of Heckel et al is not in the form of particles.

The Boehmer et al patent discloses biodegradable expanded foam material prepared by combining a starch-graft copolymer with grain based starch containing materials and 15 to 25% water and expanding the mixture either with or without blowing agents. The types of products which can be formed by the expanded foam material are described at column 3, lines 21 - 29 of Boehmer et al as follows:

The expected products of the invention include a wide array of foamed articles, including loose fill packing, foam sheeting, rigid foam blocks, and miscellaneous thermoformed products such as egg containers, food trays, plates, and food containers. In addition, the formulation is useful for making floor swiping compounds, and may be used for packaging hazardous waste materials which are to undergo a degradative treatment process.

All of the examples of Boehmer et al relate to the formation of loose-fill packaging materials, similar to those popularly known as "foam peanuts," and a foam sheet for use in packaging.

Clearly, the Boehmer et al patent is mainly directed to packing and packaging materials and provides absolutely no suggestion that the biodegradable expanded foam material can be used as an insulant for a pipe insulating jacket. Likewise, there

is no suggestion in Heckel et al and that the material of Boehmer et al should be used in the pipe insulating jacket. Moreover, even assuming, arguendo, one of ordinary skill in the art would have combined the teachings of Heckel et al and Boehmer et al, the only reasonable combination would be to use a foam sheet, e.g., of the type described in Example 7 of Boehmer et al in place of the foam of Heckel et al which is also apparently in the form of a sheet. Thus, there is no suggestion in Heckel et al and/or Boehmer et al to use loose-fill material of Boehmer et al as the foam material in the pipe insulating jacket.

Clearly, neither Heckel et al nor Boehmer et al would have suggested filling the space contained between a first enclosure interior to a second enclosure with vegetable foam particles. Accordingly, the proposed combination of Heckel et al and Boehmer et al would not have suggested the presently claimed invention.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 612.41024X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in black ink, appearing to read 'Alan E. Schiavelli', is written over a horizontal line.

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